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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,206	04/20/2005	Javier Marti Sendra	027318-00003	5648

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EXAMINER

BLEVINS, JERRY M

ART UNIT	PAPER NUMBER
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2883

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/507,206

Applicant(s)

MARTI SENDRA ET AL.

Examiner

Jerry Martin Blevins

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/14/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/14/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent to Lowery et al., number 6,882,772.

Regarding claim 1, Lowery teaches a multiple delay line (Figure 1, element 12) based on AWG (column 2, lines 25-34) and different sections of a dispersive optical medium (Figure 1, element 2), characterized in that by means of the use of simultaneous separated wavelengths (WDM) (column 5, lines 41-59) the FSR of the AWG is capable of introducing a different delay for each optical carrier (column 4, lines 35-42), the delays being obtained due to the dispersion of the sections of the dispersive optical medium of the feedbacks (column 6, lines 6-13), and because the obtaining of one or another set of delays is optically performed by means of the choice of a specific subset of wavelengths (column 3, lines 18-34).

Regarding claim 2, Lowery teaches the above limitations of the base claim 1. Lowery also teaches that the delay line is characterized in that the dispersive optical medium consists of sections of dispersive optical fiber both in transmission and in reflection (column 1, lines 35-47 and column 2, lines 25-34).

Regarding claim 3, Lowery teaches the above limitations of the base claim 1. Lowery also teaches that the delay line is characterized in that the feedback configuration between the input and output ports of the AWG is any type of loop-back configuration (column 6, lines 6-13).

Regarding claim 5, Lowery teaches the above limitations of the base claim 1. Lowery also teaches that the delay line is characterized in that the wavelengths have a separation between them that is multiples of the FSR of the AWG (column 5, line 60 – column 6, line 5).

Regarding claim 6, Lowery teaches the above limitations of the base claim 1. Lowery also teaches that the delay line is characterized in that a finite number of wavelength groups are simultaneously introduced, so that the wavelengths of each group are FSR separated from each other but not from wavelengths of other groups (column 5, lines 60-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lowery in view of US Patent to Lee et al., number 6,735,391.

Regarding claim 4, Lowery teaches the above limitations of the base claim 1. Lowery does not teach that the delay line is characterized in that the feedback configuration between the input and output ports of the AWG is any type of fold-back configuration. Lee teaches an AWG which has a fold-back configuration (column 3, line 66 – column 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Lowery with the fold-back configuration AWG of Lee. The motivation would have been to enhance WDM by allowing for bi-directional WDM (Lee, column 3, line 66 – column 4, line 3).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Martin Blevins whose telephone number is 571-272-8581. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800

JMB